



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C12N 15/82, A01H 4/00	A1	(11) International Publication Number: WO 00/53783 (43) International Publication Date: 14 September 2000 (14.09.00)
--	----	---

(21) International Application Number: PCT/SG99/00016

(22) International Filing Date: 10 March 1999 (10.03.99)

(71) Applicant (for all designated States except US): INSTITUTE
OF MOLECULAR AGROBIOLOGY [SG/SG]; 1 Research
Link, Singapore 117604 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JIAO, Gai-Li [CN/SG];
Block 322, Clementi Avenue 5, #03-237, Singapore 120322
(SG). LIU, Jian, Wei [-/SG]; 13 Toh Yi Drive #07-05,
Singapore 590013 (SG).(74) Agent: ELLA CHEONG & G. MIRANDAH; P.O. Box 0931,
Raffles City, Singapore 911732 (SG).(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW,
ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG,
ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI,
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE,
SN, TD, TG).

Published

With international search report.

(54) Title: AGROBACTERIUM-MEDIATED TRANSFORMATION OF COTTON WITH NOVEL EXPLANTS

(57) Abstract

A method is disclosed for producing a transgenic cotton plant comprising the steps of (a) obtaining cottonfibrous root explants, (b) culturing the fibrous root explants to induce callus formation, (c) exposing root callus to a culture of *Agrobacterium tumefaciens* that harbors a vector comprising an exogenous gene and a selectable marker, the *Agrobacterium* being capable of effecting the stable transfer of the exogenous gene and selection agent resistance gene to the genome of the cells of the explant, (d) culturing the callus in the presence of the selection agent to which the selection agent resistance gene confers resistance so as to select for transformed cells, (e) inducing somatic embryo formation in the selected callus culture, and (f) regenerating the induced somatic embryos into whole transgenic cotton plants.